

ORDER

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

6980.12

1/8/71

PROVISION OF REMOTE MONITOR FOR ELECTRICAL POWER AND/OR
SUBJ: REMOTE START OF STANDBY ENGINE GENERATORS (RIS: SM 6980-O/T)

1. PURPOSE. This Order establishes guidelines for the provision of remote monitoring for commercial or standby power and remote starting of engine generators.
2. DISTRIBUTION. This Order is distributed to the division level in FAA headquarters in Systems Maintenance Service, Systems Research and Development Service, Facility Installation Service, and Logistics Service; to the section level in Regional Airway Facilities Offices; to the branch level in Area Airway Facilities Offices; and all Airway Facilities Field Offices.
3. BACKGROUND. Electrical atmospheric disturbances principally generated by electrical storms affecting utility transmission lines often result in a power failure and subsequent facility outage where a standby power plant is not installed. Maintenance personnel upon receiving notification of the facility outage must then make costly, lengthy, and sometimes hazardous trips to the facility only to discover that commercial power is not available. Where a standby engine generator is installed, it starts, takes over the station load and continues to supply power to the facility until commercial power is restored or until the fuel is exhausted. Monitoring of commercial and standby power status would have eliminated these unnecessary trips and prevented outages due to lack of fuel.

To reduce facility outages when power line service interruptions are anticipated, instructions (Order 6980.5 dated 1/19/68) have been issued for operation of emergency engine generators at manned facilities during the interval of the anticipated storm. This isolates the facility from surges and transients from the commercial power line that causes fuses to blow and other components to fail. This has increased the facility reliability when most needed. Installation of a remote starting feature at certain unmanned facilities should also result in a similar increased reliability and continuity of service.

Distribution: WSM/RD/FI/LG-2; RAF-4
MAF-2, FAF-0 (Minimum)

Initiated by: SM-140

4. APPLICATION. The remote power monitoring and engine generator starting features shall be installed at the following designated facilities that meet the criteria set forth in paragraph 5 below. Facilities qualifying under paragraph 5b may also be provided with these features when justified.

a. Monitoring of engine-generators and/or commercial power.

(1) Enroute facilities.

b. Starting and monitoring engine generator power.

(1) Terminal facilities.

(2) Category II **ALS** facilities operational requirements, i.e., normal one-second changeover requirement (Order 6030.20A).

(3) Manned facilities requiring local alternate control stations, i.e., a remote station in the electronic equipment room.

c. Starting of engine generators and monitoring both commercial and engine generator power.

(1) Selected **enroute** facilities such as **RML's**.

5. CRITERIA.

a. All facilities identified in Order 6030.31, Appendix 2, qualifying for call-back and immediate response under Paragraph 7, Level B(2) and Level C(1) and (2), as applied to the "Critical" category, paragraph 8d(1).

b. Selected facilities with special situations may be equipped when warranted. Facilities to be considered in this category are those having:

(1) A history of adverse weather conditions where excess travel (more than two hours per round trip) may be expected to maintain desired facilities or system reliability;

(2) A history of poor commercial power reliability;

(3) An interval between scheduled trips to a remote facility beyond fuel capacity of engine generator plant, and having

(4) Available spare landlines, link system channels, control cables by which these features could be accomplished at little cost.

6. IMPLEMENTATION. Implementation will be accomplished in priority order as funding permits.

- a. The Region Office AF Divisions are to make a survey, summarize their requirements for modification kits and forward this information to Systems Maintenance Service, Attention SM-100, within 90 days of the date of this issuance. This summary should list by type facility the number of modification kits required for

(1) Monitoring commercial power,

(2) Monitoring engine generator operation,

(3) Remote starting of engine generator plants.

RIS: SM 6980-0/T has been assigned this report.

- b. Systems Maintenance Service will issue modification instructions covering the various types of facilities to be included in this program.



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